

# MAP LEGEND

## Background

The soil surveys that comprise your AOI were mapped at 1:24,000.

MAP INFORMATION

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Middlesex County, New Jersey Survey Area Data: Version 11, Sep 17, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2011—May 1, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Area of Interest (AOI)

# 100

Aerial Photography

### Soils

### Soil Rating Polygons

<= 1.25

Area of Interest (AOI)

> 1.25 and <= 2.00

> 2.00 and <= 85.00

Not rated or not available

## Soil Rating Lines

<= 1.25

> 1.25 and <= 2.00

> 2.00 and <= 85.00

Not rated or not available

#### Soil Rating Points

<= 1.25

> 1.25 and <= 2.00

> 2.00 and <= 85.00

Not rated or not available

### **Water Features**

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Streams and Canals

### Transportation

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Rails

Interstate Highways

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**US Routes** 

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Major Roads

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Local Roads

# Soil Health - Organic Matter

Soil Health - Organic Matter— Summary by Map Unit — Middlesex County, New Jersey (NJ023)				
Map unit symbol	Map unit name	Rating (percent)	Acres in AOI	Percent of AOI
FodB	Fort Mott loamy sand, 0 to 5 percent slopes	1.25	0.0	0.0%
GamB	Galloway loamy sand, 0 to 5 percent slopes	2.00	1.0	11.8%
GamkB	Galloway loamy sand, clayey substratum, 0 to 5 percent slopes	2.00	1.9	22.1%
KemB	Keyport sandy loam, 2 to 5 percent slopes	2.00	1.7	20.1%
KeoA	Keyport loam, 0 to 2 percent slopes	2.00	3.5	40.9%
LakB	Lakehurst sand, 0 to 5 percent slopes	85.00	0.4	5.0%
PHG	Pits, sand and gravel		0.0	0.1%
Totals for Area of Interest			8.7	100.0%

# **Description**

Organic matter is any material that is part of or originated from living organisms. Includes soil organic matter, plant residue, mulch, compost, and other materials. The stabilized material is the pool of soil organic matter that is resistant to biological degradation because it is either physically or chemically inaccessible to microbial activity. These compounds are created through a combination of biological activity and chemical reactions in the soil. Humus is usually a synonym for stabilized organic matter, but is sometimes used to refer to all soil organic matter. The active fraction is the highly dynamic or labile portion of soil organic matter that is readily available to soil organisms. May also include the living biomass. Particulate organic matter (POM) and light fraction (LF) are measurable indicators of the active fraction. POM particles are larger than other SOM and can be separated from soil by sieving. LF particles are lighter than other SOM and can be separated from soil by centrifugation.

# **Rating Options**

Units of Measure: percent

Aggregation Method: Dominant Component

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Component" returns the attribute value associated with the component with the highest percent composition in the map unit. If more than one component shares the highest percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher attribute value should be returned in the case of a percent composition tie. The result returned by this aggregation method may or may not represent the dominant condition throughout the map unit.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Interpret Nulls as Zero: No

This option indicates if a null value for a component should be converted to zero before aggregation occurs. This will be done only if a map unit has at least one component where this value is not null.

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

For an attribute of a soil horizon, a depth qualification must be specified. In most cases it is probably most appropriate to specify a fixed depth range, either in centimeters or inches. The Bottom Depth must be greater than the Top Depth, and the Top Depth can be greater than zero. The choice of "inches" or "centimeters" only applies to the depth of soil to be evaluated. It has no influence on the units of measure the data are presented in.

When "Surface Layer" is specified as the depth qualifier, only the surface layer or horizon is considered when deriving a value for a component, but keep in mind that the thickness of the surface layer varies from component to component.

When "All Layers" is specified as the depth qualifier, all layers recorded for a component are considered when deriving the value for that component.

Whenever more than one layer or horizon is considered when deriving a value for a component, and the attribute being aggregated is a numeric attribute, a weighted average value is returned, where the weighting factor is the layer or horizon thickness.